UNPUBLISHED PRELIMINARY DATA

HARVARD UNIVERSITY

Meteor Department of Harvard College Observatory

SEMI-ANNUAL PROGRESS REPORT III
June 1, 1964 to November 30, 1964

National Aeronautics and Space Administration
Research Grant No. NsG-460

for

A Theoretical Study of Meteoric Trajectories and Processes, including Examination of the Incidence and Characteristics of Photographic Meteors by Reduction of About 600 Date Points

at

Cambridge, Massachusetts

PROJECT DIRECTOR: Fred L. Whipple

SCIENTIST-IN-CHARGE: Richard E. McCrosky

PRESENT STATUS

The preparation and measurement of plates continues routinely, involving two experienced computer-measurers.

A great deal of time has been spent tracking down in detail the reasons for any apparent failures in the sample 100 cases.

Machine programs have been prepared to adapt the standard meteor reduction procedures to the output of the star identification program.

PROBLEMS

The problems so far evident do not appear to be within the machine program or the basic method.

Two modifications of approach are indicated:

1) The position of the centre must be improved by computing it from the bright stars identified, in order to improve ultimate plate constants.

2) The criteria for rejection of a star from a plate constants solution must be more demanding than those used due to initial pessimism about the method.

IN PROGRESS

The programs for proceeding with the reduction are being tested for those pairs which appear to be totally satisfactory to this point.